

Appl. No. : 10/705,548  
Filed : November 10, 2003

## REMARKS

### Claims 1-24 Are Not Anticipated by U.S. Patent No. 5,270,744 ("Portney").

Claims 1-24 stand rejected 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,270,744 ("Portney"). Applicant respectfully traverses the rejection. Independent claims 1, 12, and 22 have been amended to further clarify that these claims are directed to multi-zonal monofocal intraocular lenses. The amendments to claims 1, 12, and 22 are for the purpose of clarification and do not limit or otherwise diminish the scope of the claims as originally filed.

Portney teaches an ophthalmic lens which has a plurality of alternating power zones with a continuously varying power within each zone, as well as in transition from one zone to another. In other words, a plurality of concentric zones (at least two) are provided in which the variation from far to near vision correction is continuous, i.e., from near correction focal power to far correction focal power, then back to near, and again back to far, or vice versa. Portney, abstract. Except for the small centrally placed zone of constant curvature which provides power for middle correction, a zone is considered to include a complete cycle, i.e., from the intermediate power through the high power, then back through the intermediate power to the low power, and finally back to the intermediate power. Portney, column 5, lines 17-23

By contrast, claims 1-24 are directed to a multi-zonal monofocal ophthalmic lens comprising, among other things, a plurality of zones disposed such that light entering the monofocal ophthalmic lens from a distant point source is focused to substantially a single point.

Portney does not teach nor even suggest a multi-zonal monofocal ophthalmic lens with a plurality of zones disposed such that light entering the monofocal ophthalmic lens from a distant point source is focused to substantially a single point. To the contrary, Portney teaches a plurality of concentric zones that include a complete cycle of optical powers, i.e., from an intermediate power through a high power, then back through the intermediate power to a low power, and finally back to the intermediate power. Thus, light entering the intraocular lens taught by Portney from a distant point source would focus to a plurality of points corresponding at least to the high power, the intermediate power, and the low power portions of the lens surface.

The effect of the ophthalmic lens taught by Portney on light from a distant point source may be illustrated using Fig. 7 of Portney, in which the two upper rays 70 intercept the lens 72 at different lens radii and at different angles. It will be appreciated by one of skill in the art that the

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horizontal ray 70 (herein referred to as ray 70a) appears to come from a distant first object (distant point source), since it is parallel to the optical axis of the lens 72. By contrast, the angled ray 70 (herein referred to as ray 70b) appears to come from a second object (point source) that is nearer to the eye, since ray 70b has a relatively sharp angle and it can be seen that it would intercept the optical axis just to the left of the page, were the line for ray 70b to be extended to the left. Because of the distribution of optical power at different lens radii, both rays 70a and 70b focus at a single point on the retina of the eye illustrated in Fig. 3. If the angled ray 70b were replaced by a ray 70c coming from the distant point source and intercepting the lens 72 at the same radial location as ray 70b, such a ray 70c would not come to the same focus as 70a. This may be reasoned to be the case since rays 70b and 70c would have different focal points because they intercept the same point on the lens and Snell's Law would, therefore, dictate that rays 70b and 70c be bent by different amounts. Therefore, since rays 70a and 70b focus at the same point, rays 70a and 70c, which come from the common distant point source, must have different foci. This is in contrast to a multi-zonal monofocal ophthalmic lens according to claim 1 of the instant application in which light entering the lens from a distant point source is focused to substantially a single point.

At least because Portney does not teach or suggest all of the limitations of claims 1, 12, and 22, Applicant requests the Examiner to indicate that amended claims 1, 12, and 22 are allowable. Claims 2-11, 13-21, and 23-24 depend from claims 1, 12, and 22 and further define the invention of claims 1, 12, and 22. Thus, claims 2-11, 13-21, and 23-24 are patentable over Portney at least for the same reasons that claims 1, 12, and 22 are patentable thereover, and are patentable in their own right as well.

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### CONCLUSION

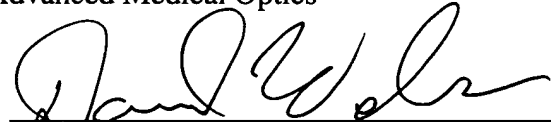
For the foregoing reasons, Applicant respectfully asserts that the claims now pending are allowable over the prior art of record. Therefore, Applicant earnestly seeks a notice of allowance and prompt issuance of this application.

The Commissioner is hereby authorized to charge payment of any fees associated with this communication to Deposit Account No. 502317.

Respectfully submitted,  
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Dated: January 24, 2005

By: \_\_\_\_\_



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